

**SKYMED
Flight Team Academy
Final Test**

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Score 91

1. A 40-year-old female is involved in a motor vehicle accident. There is minimal damage to the car other than the side door is bent and extrication is in progress. The first responders have not yet done a patient assessment. Seatbelt is on, airbag is deployed, and no evidence of head trauma is noted. The patient is comatose. The first action by the air medical crew is:

- ☒ a. Test blood sugar
- ☐ b. Assess and secure ABCs
- ☐ c. Give narcan sublingually
- ☐ d. None of the above

2. In caring for the patient above, the air medical crew's first action will be:

- ☐ a. Request a blood gas to determine need for intubation
- ☒ b. Physical assessment of airway, breathing, and circulation
- ☐ c. Review the patient's chart to determine what mistakes the referring facility has made to cause this decompensation by the patient
- ☐ d. Request a chest x-ray to evaluate the need for intubation

3. Intubation of a decompensated 20-year-old asthmatic prior to the arrival of the flight team is described as traumatic. The flight crew finds the patient to have diffuse wheezing bilaterally, poor tidal volume, and depressed mental status. No sedation has been given. In-line bronchodilator therapy has been continuous in the ER. Care during transport should include:

- ☒ a. Neuromuscular blocking agent and sedation
- ☐ b. Continuous in-line bronchodilator therapy with Atrovent and Albuterol
- ☐ c. All of the above
- ☐ d. None of the above

4. In an acutely decompensated patient with COPD, which of the following is true?

- ☐ a. It is contraindicated to give increased oxygen delivery to a patient with COPD in acute decompensation, because it will depress the respiratory drive
- ☒ b. Delivering sufficient oxygen to maintain saturation levels of 90–92 percent is required
- ☐ c. Intubation is contraindicated, as these patients are difficult to wean from the ventilator
- ☐ d. IV antibiotics are not indicated

5. The above patient's initial vital signs are: HR 140, RR 25, and BP 100/70. She is moved onto a long spine board, and assessment continues. Airway appears to be patent, with adequate tidal volume and respiratory effort. Pulse oximetry on room air shows 92 percent. The next appropriate step by the flight crew is:

- ☒ a. Test blood sugar
- ☐ b. Assess and secure ABCs
- ☐ c. Give D50 IV followed by narcan
- ☐ d. Complete a secondary survey

6. A 25-year-old patient is seen at a rural ER, 5 days after an MVC in which he sustained a closed skull fracture. His mother states that he had a persistent runny nose over the past 5 days, and today complained of headache, neck pain, and photophobia. He is found to be confused, hallucinating visually, with a temperature of 102 degrees Fahrenheit. His pulse is 125, respiratory rate is 25, and blood pressure is 150/90. The most likely cause of this delirium is:

- ☒ a. Meningitis from an undiagnosed cribiform plexis injury
- ☐ b. A subdural hematoma
- ☐ c. A thrombotic stroke
- ☐ d. None of the above

7. The patient above is prepared for transport. He is uncooperative, and resists physical restraint on the transport gurney. His pulse oximetry reading shows 80 percent. He will not allow a nasal cannula or oxygen mask to be placed. The air medical specialist should consider:

- ☒ a. RSI with aggressive airway capture
- ☐ b. Mild sedation with Fentanyl for the headache pain
- ☐ c. Thrombolytic therapy for the thrombotic stroke symptoms
- ☐ d. Heavy sedation, and delivery of IV antibiotics immediately

8. A patient transport is requested for a 65-year-old hypertensive female with mental status changes. Attempts to lower the patient's blood pressure with po medication at the referring facility have been unsuccessful. You find the patient sitting upright in a hospital bed, talking pleasantly with the nurses. She does not recognize her daughter at the bedside, who states she has a history of Alzheimer's. Vital signs show a heart rate of 90, a respiratory rate of 16, a normal temperature, and a blood pressure of 190/110. After assessing and stabilizing ABCs, you immediately:

- ☒ a. Talk to the daughter to establish any change in mental status from baseline
- ☐ b. Immediately hang Nipride to reduce the blood pressure, using standard titration
- ☐ c. Consider canceling the transfer, informing the referring staff that the patient is demented, not delirious
- ☐ d. Call the on-call physician, or receiving physician, to discuss the case prior to transport

9. You are going to the scene of a motor vehicle crash. Upon arrival, you:

- ☒ a. Complete an initial patient assessment after loading the patient into the helicopter.
- ☐ b. Complete an initial patient assessment in the ambulance prior to loading the patient in the helicopter
- ☒ c. Complete both an initial and detailed patient assessment in the ambulance prior to loading the patient
- ☒ d. Complete both an initial and detailed patient assessment after loading the patient into the Helicopter

10. You receive a report about a patient with a 30 percent pneumothorax and on room air, whom you will be transporting in a non-pressurized fixed-wing aircraft. The following is included in the pre-planning portion of your transport:

- a. You must have an arterial blood gas (ABG) on the patient prior to departure
- ☐ b. You inform the pilot you must restrict the altitude of the flight to 3,000 feet
- c. Request that a chest tube be placed prior to arrival
- d. Request that the patient be intubated prior to arrival

11. During your initial assessment of a trauma patient, you have difficulty clearing the airway. Your next intervention is to:

- ☒ a. Continue on to the breathing component of your initial patient assessment.
- ☐ b. Remain with the airway portion of the assessment until patent airway is obtained
- ☒ c. Have an EMT continue to try to clear the airway while you complete the initial patient assessment
- d. Load the patient and continue your initial assessment in the aircraft

12. Auscultation of the chest in the patient described above reveals rhonchi in the posterior right base, with mild expiratory wheezing in that area only. Lung sounds are harsh and velcro-like on the left, but no wheezing is appreciated. Examination of the skin reveals multiple tract marks from IV drug abuse in the antecubital areas of both arms. The patient's pulse oximetry reads 85 percent. Examination of the chest x-ray reveals a dense infiltrate in the right lower lung field, and diffuse patchy infiltrates in all lung fields. A likely etiology of hypoxia in this patient is:

- a. Pneumonia from infection
- b. Pneumonitis from IV drug abuse
- c. Pneumocystis pneumonia or diffuse TB as a result of immunocompromise
- ☐ d. All of the above

13. During an acute asthma attack all of the following except ____ occur::

- ☒ A. mucous membranes become edematous
- ☐ B. airway resistance decreases
- ☐ C. secretions accumulate
- ☐ D. hypoxia is a common problem

14. You are transporting a critical patient that requires emergent surgical services at the receiving facility. You are informed by the referring facility that it will be at least 30 minutes before copies of the radiological studies will be available. You:

- a. Load the patient and have the referring facility forward the copies when available
- b. Do not load the patient and wait for the films
- ☒ c. Request to take the originals with you and load the patient
- d. None of the above

15. Information required for a transport:

- a. Name, age, weight
- b. Weight, age, gender
- ☒ c. Weight, age, height
- d. Weight, diagnosis, name

16. Which of the following is not a true statement concerning physiologic stresses in flight?

- a. Patients and crew flying at high altitude for prolonged flights will be exposed to very low humidity and may develop dehydration
- b. Patient positioning during aircraft maneuvers such as takeoffs and landings may affect blood pooling and intracranial pressure due to changes in gravitational forces
- ☒ c. Aircraft cabin pressures can maintain a simulated 20,000 foot altitude in order to minimize the effects of barometric pressure changes and subsequent hypoxia
- d. The loss of fluid from the intravascular space to the extravascular space during flight may cause edema, dehydration, tachycardia and hypotension

17. Which of the following is NOT a true statement?

- ☒ a. Normal physiologic function occurs up to 20,000 feet without intervention
- b. Between 12,000 and 50,000 feet physiologic function becomes impaired without intervention
- c. Beyond 50,000 feet, a pressurized environment is required
- ☒ d. Changes in physiologic function at altitude may impact the safety of transporting critically ill patients

18. Which of the following is NOT a proper clinical interpretation of the physical gas laws?

- ☐ a. Any piece of equipment or body cavity containing gas will be subject to the effects of that gas' expansion with ascent and contraction upon descent
- ☐ b. An increase in altitude diminishes the oxygen available to the body and can result in hypoxia
- ☐ c. Ascending too quickly or flying within 24 hours of a dive can result in nitrogen bubble formation in the blood, causing the "bends"
- ☒ d. Temperature variations have little effect on the patient's metabolic rate, oxygen demands, and oxygen consumption

19. Air transport is requested from a small rural hospital with no ICU and limited subspecialty support for a 26-year-old female with chief complaint of dyspnea. The patient has a history of asthma, and has had progressive increased difficulty in breathing over the past 2 days. She is febrile at 102 degrees Fahrenheit, heart rate 120, respiratory rate 36/minute, and blood pressure 150/80. Upon arrival at the referring facility, the air medical crew finds the patient slumped down in the bed, with a nebulized, bronchodilator treatment in progress. The patient is confused and unable to answer questions appropriately. A correct immediate assumption is:

- ☐ a. The patient is psychotic, and in need of anti-psychotic medication
- ☒ b. The patient is hypoxic and requires aggressive airway evaluation and management
- ☐ c. The patient is hypotensive and requires aggressive fluid resuscitation
- ☐ d. The patient is experiencing an allergic reaction to medications given in the emergency department

20. Concerning noise as a stress factor in flight, which of the following is a true statement?

- ☒ a. The longer the exposure and the more intense the noise, the greater the potential damage
- ☐ b. Task performance effectiveness is not usually affected by noise
- ☐ c. Hearing protection should be worn by the crew, but is not necessary for patients
- ☐ d. Temporary hearing loss is not a risk for patient or provider

21. Concerning vibration as a stress factor in flight, which of the following is a true statement?

- a. The elderly are more susceptible than neonates to direct injury from vibration and noise
- ☒ b. Vibration is a result of the aircraft motor and rotors, and can be due to turbulent weather
- ☐ c. Vibration does not typically increase the pain at a fracture site
- d. In-flight vibration does not interfere with invasive and noninvasive electronic monitoring

22. Who is responsible for transporting records on an interfacility transport?

- a. The receiving hospital
- b. The transferring hospital
- ☒ c. The transport team
- d. The patient's family

23. Who is required to obtain informed consent to transfer under federal EMTALA rules?

- a. Air medical providers
- ☒ b. Transferring hospitals
- c. Receiving hospitals
- ☐ d. The patient's family

24. What is EMTALA?

- a. Emergency Medical Transfer Act
- b. Emergency Medical Transfer and Liability Act
- ☒ c. Emergency Medical Treatment and Active Labor Act
- d. None of the above

25. What does EMTALA require?

- ☐ a. Payment for the transfer of the patient
- ☒ b. The sending institution to provide an appropriate transfer of the patient
- c. For the patient to be transferred if they are unable to pay
- d. None of the above

26. What are the key ethical issues in selective patient acceptance or refusal?

- a. Competitive considerations
- b. Patient's ability to pay for the services
- ☒ c. Responses must be based on the time of the flight request
- d. All of the above

27. Important information to obtain on a maternal transport should include:

- ☒ a. Gravida, Para, multiple gestation
- ☒ b. Estimated date of confinement (EDC)
- ☒ c. Cervical dilation, contraction status
- ☒ d. Maternal vital signs, Fetal heart rate pattern
- ☒ e. All of the above

28. H.E.L.L.P. Syndrome stands for

- ☐ a. Hemolysis, Extra Levels of Liver Proteins
- ☒ b. Hemolysis, Elevated Liver, Low Platelets
- ☐ c. Hemolysis, Edema Lower Extremities, Proteinuria
- ☐ d. None of the above

29. Fetal tachycardia is:

- ☐ a. Defined as a FHR > 160 for 10 minutes or more
- ☐ b. May occur with maternal fever or chorioamnionitis
- ☒ c. Both of the above
- ☐ d. None of the above

30. Which one of the following suggests a reassuring fetal heart rate pattern?

- ☐ a. FHR of less than 110 for longer than 10 minutes
- ☒ b. Variable FHR between 110 and 160
- ☐ c. FHR with no accelerations
- ☐ d. FHR decelerations that begin after the start of the contraction and remain below baseline until after the contraction is completed

31. During air transport, expansion of gas trapped with the maternal body may:

- ☒ a. Cause discomfort
- ☐ b. Aggravate or increase contractions
- ☐ c. Cause a release of oxytocin that stimulates uterine contractions
- ☒ d. All of the above

32. Mothers with diabetes have an increased risk of giving birth with what congenital anomaly?

- ☐ a. gastroschisis
- ☒ b. transposition of great vessels
- ☐ c. IVH
- ☐ d. Hyaline Membrane Disease

33. You have a 10 kg child that was intubated for respiratory distress. What are the correct initial vent settings?

- ☐ a. TV 100 Rate 35 PEEP 3 FiO2 90%
- ☒ b. TV 120 Rate 32 PEEP 5 FiO2 100%
- ☐ c. TV 80 Rate 24 PEEP 5 FiO2 100%
- ☐ d. TV 95 Rate 18 PEEP 10 FiO2 50%

12-15 mL/kg

34. You are called to do a interfacility transfer for status asthmaticus. Your patient weights 10 Kg. He has received 2 xopenex neb mask treatments. He has no IV access. He is pale with dry cracked lips. The patient's RR is 28 with retractions and nasal flaring.

- ☒ a. continue with individual xopenex treatments
- b. start an IV and give 400 cc bolus
- c. start albuterol neb treatments
- ☒ d. start continuous albuterol neb treatments, give atrovent unit dose neb, start an IV and give fluid bolus of 200 cc. Monitor for intubation.

35. You receive the following report : 6 y.o. male with difficulty breathing. Soft tissue x-ray of the neck shows an abnormal airway with a enlarged thumblike epiglottis. He is receiving blow-by O2. Your differential diagnosis should be ?

- a. croup
- ☒ b. epiglottitis
- ☒ c. retropharyngeal abcess
- ☒ d. foreign body ingestion.

36. You are shown a chest x-ray of a 4 year female who has a low grade fever. You note the steeple sign on the film. Your differential diagnosis should be ?

- ☒ a. croup
- b. epiglottitis
- c. retropharyngeal abcess
- d. foreign body ingestion

37. You respond to a community hospital for the transfer of a 30y/o, 90kg male that has 3rd degree burns to his head, anterior chest, anterior abdomen and both arms. He has worsening dyspnea and has begun to have dark urine drainage into his foley. What amount of fluid should this patient receive over the next 24 hours?

- ☒ a. 16200 cc
- b. 1620 cc
- c. 32400 cc
- d. 3240 cc

Handwritten calculations for Q17:
 $400 / 90 / BSA$
 $41 \quad 18$
 $90 \quad 18$
 $63 \quad 18$
 9

38. Calculate the following patient's cerebral perfusion pressure: BP: 150/75 HR: 140 RR: 28 SaO2 100% CVP: 2 ICP: 25

- a. 85
- ☒ b. 75
- c. 70
- d. 80

Handwritten calculations for Q38:
 $BP \times 2 = 25$
 $MAP - ICP =$
 $100 - 25 = 75$
 $300 + 7 = 307$
 $150 + 150 = 300$
 $300 \div 3 = 100$
 $150/75$

39. Which of the following most accurately indicates the changes in left ventricular pressure?

- a. Central Venous Pressure
- ☒ b. Pulmonary Capillary Wedge Pressure
- c. Systemic Arterial Blood Pressure
- ☒ d. Pulmonary Artery Pressure

40. Preload may be described as follows:

- ☒ a. The stretch produced within the myocardium at the end of diastole
- ☐ b. The volume in ventricles during systole
- ☐ c. The back-up of pressure in the systemic circulation
- ☐ d. The amount of blood returning to the heart

41. Normal CVP is

- a. 2- 14 mmHg
- b. 0- 5 mmHg
- ☒ c. 0- 8 mmHg
- d. 4- 18 mmHg

42. You are given the following ABG. You suspect that the patient is in a

PH 7.51 ↑
PO2 98
PCO2 30 ↓
HCO3 26

7.35 - 7.45
80 - 100
35 - 45

- a. Respiratory Acidosis
- ☒ b. Respiratory Alkalosis
- ☐ c. Metabolic Acidosis
- ☐ d. Metabolic Alkalosis

43. Which of the following blood gases reflect compensation?

- ☒ a. pH 7.34, PCO2 60, HCO3 30
- b. pH 7.26, PCO2 55, HCO3 24
- c. pH 7.30, PCO2 32, HCO3 18
- d. pH 7.48, PCO2 32, HCO3 23

44. A high PCWP could be the result of

- ☐ a. low fluid volume
- ☐ b. low SVR
- ☒ c. low LV output
- ☐ d. low HR

45. An 8 month old child presents with a history of diarrhea. He is pale with a pulse of 140 respiratory rate of 45, BP of 68/40, capillary refill of 4 seconds. Immediate management would include:

- a. blood gases, serum electrolytes and bicarbonate administration of 1 meq/kg
- ☒ b. IV access and a 20 ml/kg bolus of isotonic crystalloid as needed
- c. careful observation and oral hydration
- d. intubation

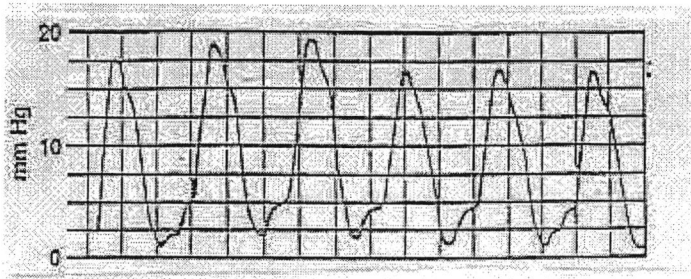
46. Your patient is noted to have compound fractures of his lower extremities. Which method of splinting would MOST likely be hazardous to a patient being transported to altitude in an unpressurized aircraft?

- a. Board splint
- ☒ b. Pneumatic splint
- c. Cardboard splint
- d. Posterior ladder splint

47. Which gas law would explain why the above method of splinting would be a problem?

- ☒ a. Boyle's Law
- b. Charles' Law
- c. Henry's Law
- d. Dalton's Law

48. You are transporting a patient who has a pulmonary artery catheter in place. En route V tach appears on your EKG monitor. Your MRL displays the following hemodynamic waveform.



The PAC has migrated to the

- a. LV
- ☒ b. RV
- c. RA
- d. LA

49. You are transporting a scene patient from an altitude of 8000 feet to an altitude of ¹⁰⁰⁰1000 feet. The ground EMS provider informs you that he inflated the ET tube cuff with 10 ml of air. The volume in the cuff will _____ when the aircraft lands

- ☒ a. remain the same
- ☒ b. decrease
- c. increase
- d. none of the above

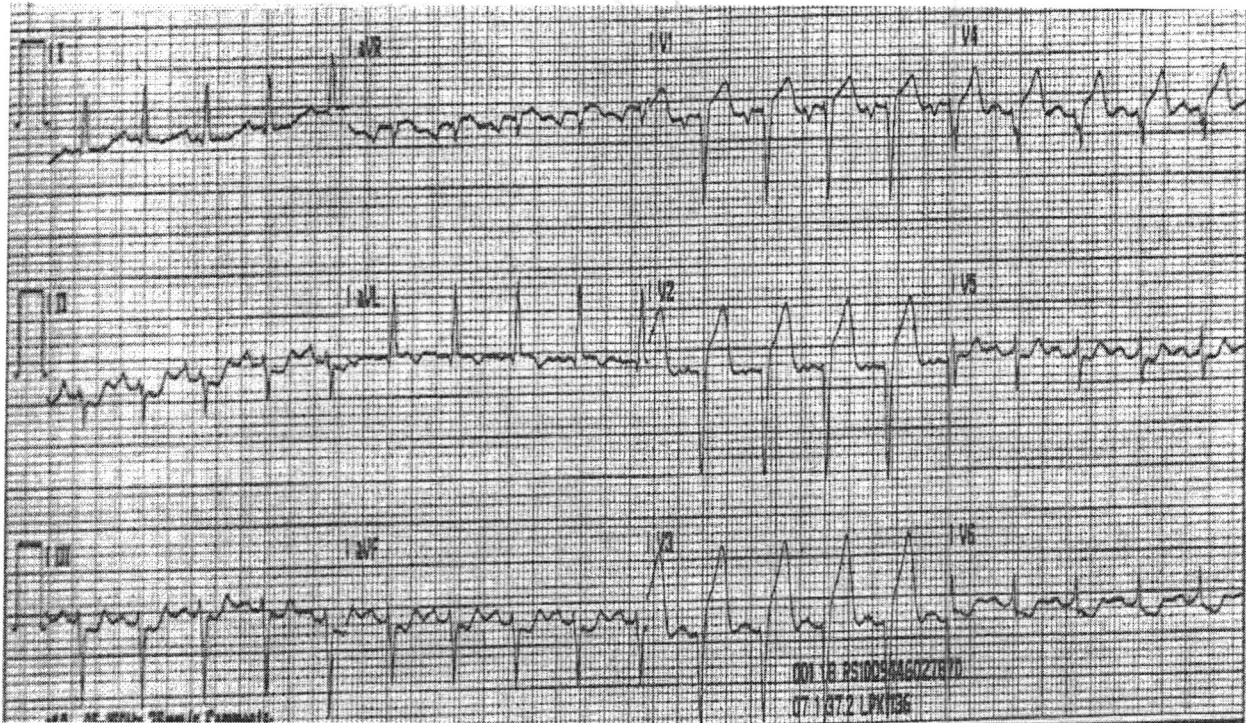
50. As altitude increases the outside air temperature will D. The gas law known as C explains this phenomena.

- a. Increase - Boyles
- b. Decrease - Boyles
- ☒ c. Decrease - Charles
- d. Increase - Charles

51. The first hospital based rotary-wing air medical program was located at ?

- a. Johns Hopkins - Baltimore
- ☒ b. St. Anthony's - Denver
- c. Good Samaritan - Phoenix
- d. Memorial Herman - Houston

52. You arrive at a local ER where you are given the following 12 lead EKG –



You identify this as a

- a. lateral wall MI
- b. posterior wall MI
- c. inferior wall MI
- ☒ d. anteroseptal wall MI

53. A combi-tube is an acceptable alternative to a failed intubation attempt

- ☒ a. true
- b. false

A 36 year old male passenger in a single vehicle rollover accident approximately 30 minutes prior to your arrival. Upon your arrival, the patient is in marked respiratory distress with a clinched jaw and heart rate of 56. BP is 90 by palpation. The patient is on 100% non-rebreather mask and sats are 80%. The patient is not on the monitor. A decision to intubate is made. The patient weighs 75 Kgs

75 Kgs

54. What is the correct dosage of Lidocaine ? 1mg/Kg

75mg

55. What is the correct dosage of Atropine ? .02mg/Kg

1mg

56. What is the correct dosage of Versed ? .1mg/Kg

7.5mg

57. What is the correct dosage of Etomidate ? .3mg/Kg

22.5mg

58. What is the correct dosage of Anectine ? 1mg/Kg

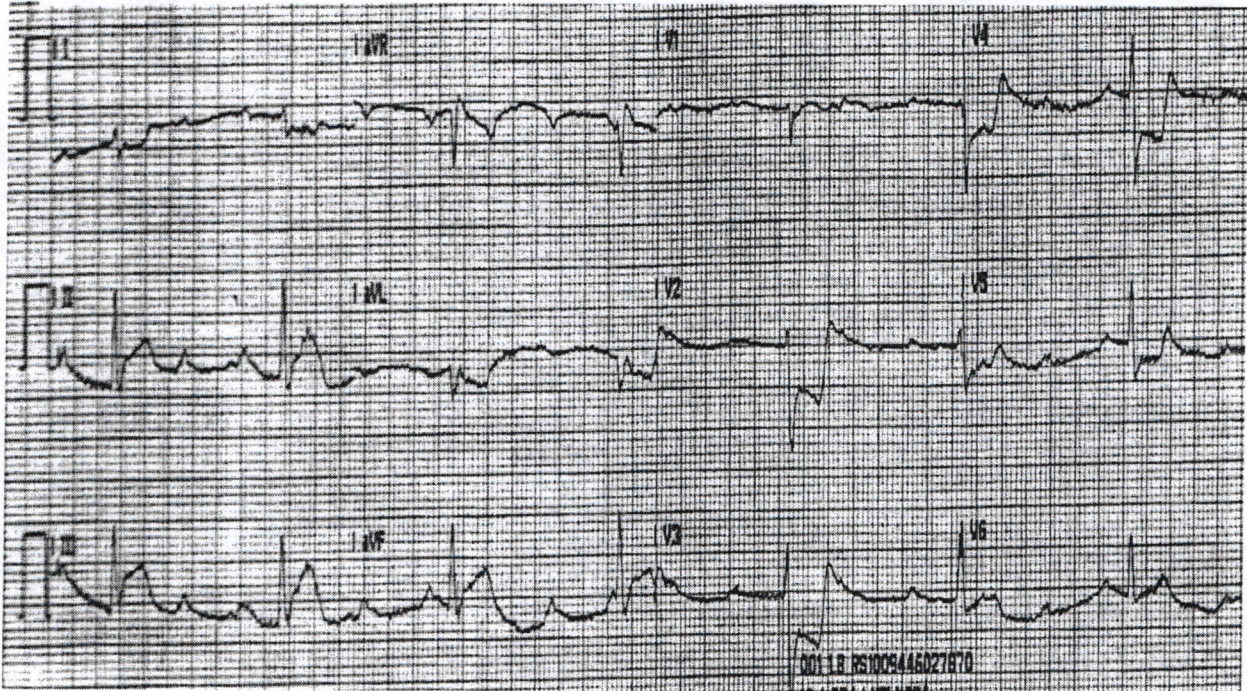
75mg

59. What is the correct dosage of Vecuronium ? 0.1 mg/kg

7.5mg
15mg
150mcg

60. What is the correct dosage of Fentanyl ? $1-2 \text{ mcg/kg}$
up to 150mcg

61. You arrive at a local ER where you are given the following 12 lead EKG -



You identify this as a

- a. lateral wall MI
- b. posterior wall MI
- c. inferior wall MI
- d. anteroseptal wall MI

Interpret the following ABGs

62. \downarrow pH 7.35 PCO₂ 12 PO₂ 272 HCO₃⁻ 2 BE -31

- a. Respiratory Acidosis
- b. Respiratory Alkalosis
- c. Metabolic Acidosis
- d. Metabolic Alkalosis

63. \downarrow pH 7.26 PO₂ 64 PCO₂ 54 HCO₃⁻ 22

- e. Respiratory Acidosis
- f. Respiratory Alkalosis
- g. Metabolic Acidosis
- h. Metabolic Alkalosis

64. ST elevation in leads V5 and V6 are indicative of what type of MI?

- ☒ a. lateral wall MI
- b. posterior wall MI
- c. inferior wall MI
- d. anteroseptal wall MI

I	I, II
S	V1, V2
A	V3, 4
L	V5, V6

What does the pneumonic APGAR stand for

65. A *parame*

66. P *ulse*

67. G *rimm*

68. A *ctivity*

69. R *espiratory*

70. Air Evac a PHI Air Medical Program was the first hospital based fixed wing program in the country?

- ☒ a. True
- ☐ b. False

71. Write the formula to calculate Pediatric ET Tube size

$$16 + age \div 4$$

72. Time of useful consciousness increases as altitude increases.

- a. True
- ☒ b. False

73. The flight crew knows that the ELT is activated with an impact exceeding _____ g's

- a. 1
- b. 2
- ☒ c. 4
- d. 8

74. The gas law that has the most impact on care of a patient with compromise of the gastrointestinal system is

- ☒ a. Adam's Law
- b. Charles' Law
- ☒ c. Boyle's Law
- d. Dalton's Law

75. A SpO2 reading of 90 is approximately _____ PaO2

- a. 20
- b. 35
- c. 55
- ☒ d. 70

76. Normal adult CPP is at least _____?

- a. 20
- b. 40
- ☒ c. 60
- d. 80

77. Lung sounds associated with pulmonary edema are?

- OK
- a. wheezing
 - b. stridor
 - ☒ c. rhonchi
 - d. rales

78. Which of the following topics are covered by the Code of Federal Regulations (CFR) minimum operating standards for pilots?

- a. Flight operations and maintenance
- b. Airspace and air-taxi operations
- ☒ c. All of the above

79. The top priority on all flights involving the transport of critically ill or injured patients is:

- a. Proper equipment
- ☒ b. Crew safety
- c. Informed consent
- d. Patient safety

80. UV radiation is a stressor of flight

- a. true
- ☒ b. false

81. A "Regulation" is best described as:

- ☒ a. A law or statute designed to control or govern specific conduct
- b. A voluntary process through which a service is approved
- c. A minimally acceptable action or level of quality
- d. A statement or policy designed to determine a course of action

82. Which of the following organizations provide voluntary certification processes?

- a. CAMTS, FAA, NHTSA
- b. NHTSA, JCAHO, CAMTS
- ☒ c. CAAS, CAMTS, JCAHO
- d. FAA, NHTSA, CAAS

83.. The FAA HEMES regulations specifically address:

- a. Pilot qualifications and training for EMS
- b. Weather reporting practices
- ☒ c. Flight and duty time
- d. Required helicopter communications in controlled air space

84. The Commission on Accreditation of Medical Transport Systems (CAMTS) is:

- ☒ a. A voluntary accreditation process for medical transport systems (air and ground)
- b. Limited to medical transport systems in the U.S.
- c. Controlled by the Association of Air medical Services (AAMS)
- d. An accreditation process that addresses patient care issues only

85. The helicopter saw wide spread use for medical evacuation during:

- a. World War I
- ☒ b. World War II
- c. Korean War
- ☒ d. Vietnam

86. What are the two frequencies that ELT devices transmit on?

- a. 150 Mhz – 325 Mhz
- ☒ b. 121.5 Mhz – 243 Mhz
- c. 128.85 Mhz – 257.7 Mhz
- d. None of the above

87. When orally intubating a patient, all but one of the following structures should be visualized

- a. Epiglottis
- ☒ b. Adenoid Cartilage
- ☒ c. Carina
- d. Vocal Cords

88. The most life threatening problem associated with facial injury is ?

- a. laryngeal edema
- b. cervical strain
- c. profuse hemorrhage
- ☒ d. airway obstruction

89. Which of the following is the most serious complication associated with endotracheal intubation?

- a. fractured incisor tooth
- ☒ b. esophageal intubation
- c. perforation of the oral mucosa
- d. dislocation of the jaw

90. The lip line show lie approximately ____ times the ET tube diameter

- a. 1
- b. 2
- c. 2.5
- ☒ d. 3

91. In preparation for rapid sequence induction of a head injury patient, it is most important to consider:

- ☒ a. Patient's age
- b. Level of anesthesia needed to accomplish intubation
- ☒ c. Methods to decrease ICP
- d. Positioning of the patient's feet

92. When large dosages of fentanyl is give too rapidly, _____ may occur.

- ☒ a. tachycardia
 - ☒ b. stiff chest
 - ☒ c. tachypnea
 - ☒ d. hypercarbia
- ↓ Resp, Hypo, NP brady*

93. Carbon dioxide is part of the body's auto-regulatory system and affects the:

- a. Cerebral blood flow
- b. Cellular transport of glucose
- ☒ c. Rate of respirations
- d. Systolic blood pressure

94. Your 29-year-old trauma patient has a hematoma on the right side of his neck, your most important intervention will be:

- a. Transfer the patient to a Level 1 trauma center
- b. Head to toe assessment and establishing and IV
- c. Complete and thorough documentation of the injury
- ☒ d. Thorough assessment of the airway

95. Tracheal intubation is contraindicated in cervical spine injuries.

- a. True
- ☒ b. False

96. The threshold values recommended in *Guidelines for Prehospital Management of Traumatic Brain Injury* (TBI) include:

- a. CPP 90, SaO2 90, GCS 9
- ☒ b. SBP 90, SaO2 90, GCS 9
- c. CPP 10, SaO2 100, GCS 10
- d. None of the above

97. Which of the following are American Burn Association criteria for a major burn?

- a. Full thickness, TBSA > 10 percent
- b. Burns involving face
- c. Burn with inhalation injuries
- ☒ d. All of the above

98. Using the Parkland formula, what is the proper fluid resuscitation in the first 8 hours for a 20-kg child with 25 percent total body surface area burned?

- OK
- a. 500 cc
 - b. 1000 cc
 - c. 1500 cc
 - d. 2000 cc
- 125cc

99. What is normal PaCO₂ ?

- a. 30 - 40
 - b. 32 - 44
 - ☒ c. 35 - 45
 - d. 40 - 58
- 35-45

100. If you need to precisely control a patient's ventilation parameters, what vent mode is desired ?

- a. IMV
- b. SIMV
- ☒ c. AC
- d. CPAP

$$\begin{array}{r} 18 \\ 18 \\ \hline 36 \\ 36 \\ \hline 72 \\ 72 \\ \hline 144 \end{array}$$

$$\begin{array}{r} 2 \\ 4x \\ 45 \\ 4 \\ \hline 180 \\ 7 \\ \times 90 \\ \hline 14200 \end{array}$$

100/

PHI Air Medical
Pharmalogical Assisted Intubation (PAI) Test

Name: Keith Ashley Title: EMT-P TDH#: 1290
Date: 7/9/04
Score: _____

1. When utilizing paralytic therapy the AMC is totally responsible for maintaining the patient's airway.
☒ TRUE ☐ FALSE
2. Pulse oximetry and end-tidal CO₂ monitoring should be performed on all patients receiving paralytic therapy.
☒ TRUE ☐ FALSE
3. All patients receiving paralytic therapy must have a base-line neuro exam prior to paralysis.
☒ TRUE ☐ FALSE
4. It is not mandatory to maintain spinal immobilization once paralytics have been administered.
☐ TRUE ☒ FALSE
5. The AMC should assess and record vital signs, cardiac rhythm, and pupillary exam every:
 - a. 2 minutes
 - b. 3 minutes
 - ☒ c. 5 minutes
 - d. 10 minutes
6. Once paralysis is achieved and the patient's airway is secured it is not necessary to provide constant attendance to the patient.
☐ TRUE ☒ FALSE
7. Choose the most appropriate of the following medications to be given with rapid sequence induction (PAI).
 - a. Fentanyl 1-2 mcg/kg IVP increments
 - b. Morphine 2-4 mg IVP increments
 - c. Versed 0.1 mg/kg IVP for sedation
 - d. Etomidate 0.3mg/kg IVP for sedation
 1. c and b
 2. a and d
 3. a and c
 - ☒ 4. all are acceptable

8. Circle the appropriate indications for Rapid Sequence Induction (PAI)
- ☒ a. Patients with depressed LOC
 - ☒ b. A child who cannot tolerate awake intubation
 - ☐ c. Anyone who claims to be ELVIS
 - ☒ d. Multiple trauma patients who need an airway
 - ☒ e. Combative patients with compromised airway
 - ☐ f. Your mother-in-law
 - ☒ g. Risk for increased ICP or arterial B/P such as CHI, or ICB when hyperventilation is needed
 - ☒ h. Any time risk for potential/actual airway compromise is suspected
9. RSI (PAI) is contraindicated in:
- 1. Patients in whom cricothyroidotomy would be difficult or impossible such as children under 8 years of age injuries to the NECK.
 - 2. Patients who would be difficult or impossible to intubate or ventilate after paralysis such as acute epiglottitis or upper AW obstruction.
10. The benefit of obtaining airway control must always be weighed against the risk of complications in these patients.
- ☒ TRUE ☐ FALSE
11. Malignant hyperthermia is one of the most serious complications to using paralytics.
- ☒ TRUE ☐ FALSE
12. Patients under the age of 8 years old must be given Atropine Sulfate 0.2 mg/kg to prevent bradycardia.
13. List appropriate equipment needed to assure patients safety when performing PAI.
- 1. O₂
 - 2. BVM
 - 3. 10cc Syringe
 - 4. ET
 - 5. IV
 - 6. C-collar
14. An adequately pre-oxygenated patient can remain apneic for 2 to 3 minutes without serious hypoxia.
15. What is the preferred amount of preoxygenation time using BVM prior to PAI?
- 2 minutes

16. The sequence of medication administration in PAI is:
- A. Etomidate
 - B. Fentanyl
 - C. Lidocaine
 - D. Succinylcholine
 - 1. A, B, C, D
 - 2. B, D, A, C
 - 3. D, C, B, A
 - 4. C, B, A, D
17. Please write the appropriate dosages for the following medications:
- A. Lidocaine: 1 to 1.5 mg/kg IVP
 - B. Versed: 1 mg/kg to 5 mg IVP
 - C. Etomidate: .3 mg/kg IVP
 - D. Succinylcholine: 1 mg/kg IVP
18. Reparalyze, If sedation alone does not adequately subdue the patient with Vec .1 mg/kg IVP.
19. If repeated attempts to intubate the patient fail and you are unable to adequately ventilate the patient you should utilize the Combitube.
20. List 5 required documentation tools of verification for Endotracheal Tube placement.
- 1. Visualize
 - 2. SpO₂
 - 3. Fog on tube
 - 4. CO₂
 - 5. ABD
21. The onset of paralysis when using succinylcholine usual occurs in 30 to 60 seconds.
24. Succinylcholine is contraindicated in all pediatric patients. True False
25. Bradycardia is not a complication of PAI/RSI. True False

SKYMED
Flight Team Academy
Quiz 2

Keith Ashley
-1 95
Boulos +

1. When orally intubating a patient, all but one of the following structures should be visualized
 - a. Epiglottis
 - b. Adenoid Cartilage
 - ☒ c. Carina
 - d. Vocal Cords
2. The most life threatening problem associated with facial injury is ?
 - a. laryngeal edema
 - b. cervical strain
 - c. profuse hemorrhage
 - ☒ d. airway obstruction
3. Which of the following is the most serious complication associated with endotracheal intubation?
 - a. fractured incisor tooth
 - ☒ b. esophageal intubation
 - c. perforation of the oral mucosa
 - d. dislocation of the jaw

A 16 year old male passenger in a single vehicle rollover accident approximately 30 minutes prior to your arrival. Upon your arrival, the patient is in marked respiratory distress with a clinched jaw and heart rate of 56. BP is 90 by palpation. The patient is on 100% non-rebreather mask and sats are 85%. The patient is not on the monitor. A decision to intubate is made. The patient weighs 110 lbs

4. What is the correct dosage of Lidocaine ? $1 \text{ mg/Kg} = 50 \text{ mg}$
5. What is the correct dosage of Atropine ? $.02 \text{ mg/Kg} = 1 \text{ mg}$
6. What is the correct dosage of Versed ? $.1 \text{ mg/Kg} = 5 \text{ mg}$
- ☒ 7. What is the correct dosage of Etomidate ? $.3 \text{ mg/Kg} = 1.5 \text{ mg}$
8. What is the correct dosage of Anectine ? $1 \text{ mg/Kg} = 50 \text{ mg}$
9. What is the correct dosage of Vecuronium ? $.1 \text{ mg/Kg} = 5 \text{ mg}$

Handwritten calculations for drug dosages based on 110 lbs (50 Kg):

- $50 \text{ Kg} \times 1 \text{ mg/Kg} = 50 \text{ mg}$ (Lidocaine)
- $50 \text{ Kg} \times .02 \text{ mg/Kg} = 1 \text{ mg}$ (Atropine)
- $50 \text{ Kg} \times .1 \text{ mg/Kg} = 5 \text{ mg}$ (Versed)
- $50 \text{ Kg} \times .3 \text{ mg/Kg} = 15 \text{ mg}$ (Etomidate)
- $50 \text{ Kg} \times 1 \text{ mg/Kg} = 50 \text{ mg}$ (Anectine)
- $50 \text{ Kg} \times .1 \text{ mg/Kg} = 5 \text{ mg}$ (Vecuronium)

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Preceptor Evaluation of the Trainee

Preceptor to complete this form at the end of every shift.

ORIENTEE: Keith Ashley EMP# 2963

PRECEPTOR: Jason Donaghe EMP# 2617

DATE: 6/18/04 # OF SHIFTS WORKED TOGETHER _____

0- Unsatisfactory
1- Too soon to tell
2- Needs more work
3- Has the basic skills
4- Requires minimal supervision
5- Independent, competent
N/A- Not observed

PATIENT CARE:

1. Patient Assessment	0 1 2 3 4 5 N/A
2. Charting	0 1 2 3 4 5 N/A
3. IV's and IV therapy	0 1 2 3 4 5 N/A
4. Judgment	0 1 2 3 4 5 N/A
5. Organization of time	0 1 2 3 4 5 N/A
6. Priority setting	0 1 2 3 4 5 N/A
7. Utilization of resources	0 1 2 3 4 5 N/A
8. Implementation of routine protocols	0 1 2 3 4 5 N/A
9. Knowledge of equipment	0 1 2 3 4 5 N/A
10. On scene performance	0 1 2 3 4 5 N/A
11. Use of stabilization equipment	0 1 2 3 4 5 N/A
12. Knowledge of various medications	0 1 2 3 4 5 N/A
13. Critical thinking skills	0 1 2 3 4 5 N/A
14. Oral intubations, RSI, Advance procedures	0 1 2 3 4 5 N/A

PROFESSIONALISM/ PERSONAL:

15. Dependability	0 1 2 3 4 <u>5</u> N/A
16. Seeks assistance	0 1 2 3 4 <u>5</u> N/A
17. Team effort	0 1 2 3 4 <u>5</u> N/A
18. Completion of tasks	0 1 2 3 4 <u>5</u> N/A
19. Flexibility	0 1 2 3 4 <u>5</u> N/A
20. Promptness	0 1 2 3 4 <u>5</u> N/A
21. Appearance	0 1 2 3 4 <u>5</u> N/A
22. Courtesy	0 1 2 3 4 <u>5</u> N/A
23. Motivation	0 1 2 3 4 <u>5</u> N/A
24. Enthusiasm	0 1 2 3 4 <u>5</u> N/A
25. Rapport with fellow workers	0 1 2 3 4 <u>5</u> N/A
26. Rapport with hospital personnel	0 1 2 3 4 <u>5</u> N/A
27. Rapport with EMS personnel	0 1 2 3 4 <u>5</u> N/A
28. Rapport with patient and family	0 1 2 3 4 <u>5</u> N/A
29. Openness to constructive criticism	0 1 2 3 4 <u>5</u> N/A
30. Assumes responsibility for orientation	0 1 2 3 4 <u>5</u> N/A
31. Learning capabilities	0 1 2 3 4 <u>5</u> N/A
32. Initiative	0 1 2 3 4 <u>5</u> N/A
33. Confidence	0 1 2 3 4 <u>5</u> N/A
34. Assertiveness	0 1 2 3 4 <u>5</u> N/A
35. Leadership	0 1 2 3 4 <u>5</u> N/A
36. Conciseness of report	0 1 2 3 4 <u>5</u> N/A

AIRCRAFT:

37. Daily aircraft responsibilities 0 1 2 3 4 5 N/A
38. Knowledge of equipment in A/C 0 1 2 3 4 5 N/A
39. Flight procedures 0 1 2 3 4 5 N/A
40. Safety 0 1 2 3 4 5 N/A

DAILY DUTIES:

41. Daily base cleaning duties 0 1 2 3 4 5 N/A
42. Completes all paperwork: charts, evals, etc 0 1 2 3 4 5 N/A
43. Knowledge of PHI policy and procedures 0 1 2 3 4 5 N/A
44. Takes active part in crew briefings at shift ch 0 1 2 3 4 5 N/A
45. Takes part in all marketing responsibilities 0 1 2 3 4 5 N/A

COMMENTS: Keith shows great enthusiasm. Willing to do whatever it takes to get the job done. Had 1 flight today. Excellent report Ems & Hosp. Should be released after 2 or 3 more flight. Good working knowledge of Ems & aircraft operation.

Orientees Signature: _____

Date: _____

Preceptor Signature: _____

Date: _____

6/18/04

Orientee: Keith Ashley

SKYMED
Flight evaluation

Preceptor: Tyson Douglas He

Rating Criteria:

- 1- Fails to perform procedure in a competent manner.
- 2- Performs procedure in a competent manner but requires coaching
- 3- Performs procedure in a safe and competent manner according to established standards
- 4- Performs procedure in an above average manner
- N/A- Not applicable. Did not perform procedure

Evaluation Factors

Flight # for Orientee:

Date:

1. Performs a complete primary assessment within 60 seconds and intervenes appropriately.

4

2. Obtain relevant and accurate patient history, chief complaint, meds, and allergies.

4

3. Performs appropriate physical exam based on chief complaint.

4

4. Interprets assessment information correctly and prioritizes treatment plan accordingly. (request MD consult PRN)

4

5. Evaluates effectiveness of interventions and revises plan accordingly.

4

6. Determines safety for self, partner, and patient. Takes appropriate actions to ensure there is a safe environment.

4

7. Request additional assistance and equipment when indicated.

4

8. Establishes and maintains a good rapport with patient, family, EMS, Hosp staff, etc

4

9. Establishes appropriate working relationship with all team members. (partner, EMS, hosp staff, dispatch, pilot)

4

10. Communicates information and plan appropriately to all team members.

4

11. Performs well under stress and uses good judgment.

4

12. Assumes leadership role and directs team members appropriately.

4

13. Uses all equipment effectively and operates appropriately

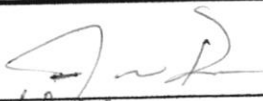
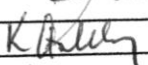
4

14. Able to locate items in bags when needed.	3
15. Accurately reports all pertinent information utilizing an organized report format.	4
16. Speaks clearly, easily understood. Establishes eye contact and proper body language with person getting report.	4
17. Documentation is complete, accurate, and legible.	4
18. Utilizes time after flight for clean up, paperwork, restock, and A/C duties.	3
19. Accepts constructive criticism and guidance.	4
20. Knowledge of protocols, policies, and procedures are evident by performance on flight.	3

Preceptor Comments: Keith had his 3rd flight today. Pass CHT. Good Assessment/Intervention. Started IV enroute to hosp. on 1st attempt. Good communication w/ pt. Uneventful flight. Should be released in 2 or 3 more flights.

Orientee Comments:

Plan for improvement: ① Location of equipment ② Radio usage. ③ Knowledge of PHI Policy.

Preceptor Signature: 
 Orientee Signature: 
 Clinical Manager Signature: _____

EMP# 2613
 EMP# 2963
 EMP# _____

Date: 6/18/04
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 Date: _____